Reframing the Debate: Toward Effective Treatment for Inner City Drug-Abusing Mothers

WENDY CHAVKIN, M.D., M.P.H.; DENISE PAONE, ED.D.; PATRICIA FRIEDMANN, M.S.; AND ILENE WILETS, PH.D.

Although drug and alcohol abuse are not restricted to urban America, it has been the crack wave in the inner cities that has galvanized public attention. Young women seem to have been swept up in its wake to an unprecedented degree. In New York State, for example, the agency regulating drug treatment reported that women comprise 30% to 40% of the crack-addicted population, a larger proportion than of any other addicted population.[1,2] Estimates derived from nationwide, hospital-based surveys of parturient women in the late 1980s indicate that approximately 10% used illicit drugs; this represents a threefold to fourfold increase from earlier in the decade.[3,4]

Although there is consensus that action must be taken to improve this situation, there has been profound debate as to the appropriate societal response. In general, one side in the debate has been occupied by those who promulgate criminal penalties for women using drugs while they are pregnant. At least 167 women in 24 states have been criminally charged for using drugs during pregnancy. The majority of these cases have not gone to trial: the women have accepted plea bargains or alternative sentences to incarceration, or the cases remain outstanding. To date, however, all such cases that have been brought to trial have resulted in dismissals, acquittals, or overturned convictions. Nevertheless, new charges are being brought at an increasing pace, tripling since 1990.[5]

* Chemical Dependency Institute, Beth Israel Medical Center, First Avenue at 16th Street, New York, NY 10003. Please address all correspondence to Dr. Chavkin at Beth Israel Medical Center.

These charges, generally fall into two categories: (1) criminal child abuse and (2) drug possession or delivery (the delivery of a controlled substance to a minor). Arguments in both categories rely on defining a fetus as a child, and thus implicitly stake out a position in the ongoing national struggle over fetal status and the autonomy of the pregnant woman, which in turn, derive from the abortion controversy. The dismissal of charges and reversal of convictions, for the most part, have been on the grounds that the law does not define the fetus as a child and that the statutes invoked were not intended to apply to prenatal conduct. Recently, Florida's State Supreme Court overruled such a conviction in the case of Johnson v. State declining "the State's invitation to walk down a path that the law, public policy, reason and common sense forbid it to tread."[6]

Simultaneously, civil charges of child neglect or abuse have been filed against women after delivery, when illicit drug metabolizes are detected in the urine of neonates. Nine states have passed bills defining drug use during pregnancy as child abuse or neglect.[7]

Many states have interpreted existing statutes or regulations so that child protective authorities can intervene when maternal drug use is detected at the time of birth. Many more women and newborns are affected in this manner than by criminal prosecution.[8]

The organized public health and medical communities have opposed prosecution and have concurred that the best way to resolve the problem is through providing drug treatment.[9,10] Critics of the prosecutorial approach have argued that it is unfair to penalize pregnant drug users when the general shortage of drug treatment is often exacerbated by their categorical exclusion.[11] In the parallel system of civil commitment for drug and alcohol dependence, 14 states require evidence that appropriate treatment is available and 5 states require that this treatment be beneficial before permitting such commitment (emphasis added).[12,13] However, neither the criminal justice nor child protective systems ensure that drug treatment services are available, much less that these services can accommodate women with child care responsibilities, when they take action against women for using drugs during pregnancy.

Although proponents for treatment are clear about the general framework they support, many have acknowledged that the term "drug treatment" does not refer to a standard therapy but applies to a wide variety of interventions. The definition of treatment becomes critical for its advocates both to ensure that useful services are provided, and to clarify flashpoints in the legal/ethical debate on this topic.

To efficiently and systematically develop a definition of effective drug treatment for mothers, we drew upon the experience of women needing this treatment and compared their opinions with those of experts. This exploratory study was intended to generate hypotheses regarding effective treatment for inner-city, crack-addicted mothers. It employed a triangulated design and included life-history data from the target population, their opinions about effective treatment, and the opinions of experienced providers. In this article we describe the women subjects, and compare the opinions of both the experts and the women regarding critical components of a successful drug treatment program. We then discuss some of the issues that have emerged as critical in the light of the ongoing legal/ethical debates.

Methods

The Target Population

The goal was to recruit indigent, crack-using mothers from diverse settings in New York City. Because the universe of drug-using mothers is not knowable, and it is thus impossible to derive a representative sample, an opportunity sample was constructed of 146 women who were currently or recently crack- or cocaine-addicted and who were either pregnant or mothers of children younger than 5 years of age. Most studies of drug users draw subjects from a single treatment program. In an effort to expand this pool to diversify the study population, we recruited subjects from both treatment and nontreatment sites, which were similar in serving low-income women but diverse in mission and approach and geographically dispersed throughout the city. Data were obtained from

women from therapeutic communities (n = 15); drug-free outpatient programs (n = 14); acupuncture treatment (n = 15); methadone maintenance treatment programs (n = 17) (45% of methadone patients use crack and cocaine concurrently; Nina Peyser, Program Sponsor, Methadone Maintenance Treatment Program Beth Israel Medical Center, New York City; personal communication; 1990); from graduates of treatment programs (n = 11); from women in AIDS prevention outreach programs (n = 14); homeless shelters (n = 15); postpartum hospital units (n = 17); prenatal care clinics (n = 15); and jail (n = 13).

Women participants were surveyed in a 1-hour, face-to-face interview which used both closed and open-ended questions to inquire about life history, as well as opinions regarding drug treatment.[14] Study participants were guaranteed anonymity. The study protocol and informed consent were approved by the Institutional Review Boards of host and participating institutions. Subjects received a designer watch worth $20 in appreciation of their participation.

Expert Panel

The expert panel was composed of 51 professionals from 20 states who had expertise in the treatment of pregnant and parenting addicted women and/or their children. A snowball sampling technique was used to generate the sample using professional networks of study contacts,[15, 16] beginning with the National Institute on Drug Abuse. The experts were chosen for national reputation and for professional and geographic diversity. Their fields of expertise included obstetrics, pediatrics, social work, corrections, child welfare, addiction treatment, and psychiatry.

The expert panel was surveyed using the Delphi technique.[17, 18] This survey method structures group communication so that a panel of experts can pool their knowledge to address a complex problem that can benefit from subjective judgment on a collective basis. This technique is useful when panel members are dispersed geographically.

In the Delphi survey, the panel of experts answered a series of two questionnaires, with the content of the second mailed ques-

tionnaire developed from the results of the first telephone interview. The experts were asked to choose the most critical aspects of drug treatment from among their pooled responses, rate these on a four-point modified Likert scale, and indicate the three most important subservices for each of the critical components identified. Results of the two questionnaires were expected to reflect both the range of opinion and the extent of consensus in the panel. The second questionnaire generated by the experts was also presented to the women subjects who were asked to select the 11 program components and 3 subservices in the same fashion as the experts.

Statistical Analysis

All study data were entered and analyzed using the SAS statistical package. χ^2 and Fisher's exact two-tailed probability tests were used to analyze categorical variables, and nonpaired, two-tailed tests were used for the continuous variables. Significant differences are reported at the .05 level.[19]

A "trauma index" was constructed to investigate the impact of the women's past life events on recent outcomes. A score was assigned corresponding to the number of previous traumatic events experienced (addiction in the family of origin, psychiatric history, sexual abuse, jail, initiation of drug use by age 15 years); for example, a woman who had been sexually abused and had a family history of drug addiction would receive a score of 2 (range 0 to 5). This index was then entered into a logistic regression equation to determine whether these traumatic past experiences moderated current drug-associated behaviors, such as daily drug use, involvement with a man who coercively provided drugs, or the exchange of sex for drugs.

Ratings of each "critical component" and subcomponent of drug treatment were computed on a modified Likert scale measuring "importance." Expert and target group selections of components were compared.

Results

Previous Trauma

Table I presents demographic and selected characteristics of the 146 women participants. Most participants were members of racial and ethnic minorities, were born in the United States, received Medicaid, and had an average of 11.5 years of education. More than half had been recently homeless, had a history of "bad nerves," and had a drug- or alcohol-addicted member in their family of origin. About half had been incarcerated at least once; had been victims of at least one forced sexual encounter; had been sexually involved with men who urged them to use crack during their pregnancies.

TABLE I.
SELECTED CHARACTERISTICS OF THE SAMPLE*

VARIABLE	MEAN	SD	RANGE
Age [146]	29.4	6.2	19—49
Years of education [146]	11.5	2.0	4—17
		N	**%**
Ethnicity [146]			
Black		84	58
Hispanic		47	32
White		13	9
Other		2	1
Source of medical insurance [145]			
Medicaid		108	75
Private insurance		13	9
Don't pay		12	8
Cash		2	1
Other		10	7
Homeless within past 2 years [146]		84	58
Ever had "bad nerves" [146]		84	58
Medicated for nerves [83]		38	46
Hospitalized for nerves [83]		22	27
Ever had forced sex [146]		74	51
Ever imprisoned [145]		67	46
Family history of drug or alcohol abuse [146]		99	68

* Percentages may not add up to 100% due to rounding. Numbers in brackets indicate number responding to specific questions.

Table II presents data regarding past and current drug use. The mean age for initiation of cigarette use was 14.5 years, for alcohol use it was 15.5 years, and for other drugs it was 17.7 years. Marijuana was usually the first drug with which they had experience. Even though study participants, by definition, met the eligibility criterion of current or recent crack addiction, about half reported multiple drug use.

Table III presents data on the logistic regression analysis. This analysis revealed that high scores on the trauma index, and having

TABLE II.
DRUG HISTORY INCLUDING CURRENT DRUG USE BEHAVIORS

	MEAN	SD
Age at first use		
Alcohol [119] *	15.5	3.9
Drug (not alcohol) [143]	17.7	5.3
Cigarette [142]	14.5	3.1
	N	**%**
First drug used/excluding alcohol [146]		
Marijuana	94	65
Cocaine, snorted	23	16
Heroin, snorted	12	8
Crack, smoked	6	4
Heroin, cocaine, injected	6	4
Other	5	3
Drugs used currently [138]		
Crack, cocaine, smoked	93	67
Cocaine, injected, snorted	45	33
Alcohol	44	32
Marijuana	39	28
Heroin, injected, snorted	24	17
Program methadone	26	19
Other	26	19
Poly drug use [130]	69	53
Frequency of use [144]		
Daily	80	56
More than weekly	27	19
Weekly	18	13
Occasional binge	13	9
Other	6	4
Male pressure to use drugs during pregnancy [146]	47	41
Exchange of sex for drugs [146]	52	36
Ever in drug treatment [146]	123	84

* Numbers in brackets indicate number responding to specific question.

TABLE III.
MULTIVARIATE ANALYSES

	χ^2	P value	Adjusted Odds Ratio (95% confidence interval)
Logistic regression equation for predicting male pressure			
Trauma index	16.01	.0001	2.015 (1.43, 2.84)
Never in drug treatment	6.97	.0083	4.92 (1.51, 16.12)
Not having completed 12 years of education	6.89	.0087	3.55 (1.38, 9.16)
Age at the time of study	5.53	.0187	1.11 (1.02, 1.21)
Logistic regression equation for predicting sex for drugs			
Trauma Index	10.03	.0015	1.576 (1.19, 2.09)
Not Having completed 12 years of education	7.36	.0067	2.754 (1.33, 5.72)
Logistic regression equation for predicting daily use of drugs			
Trauma index	6.60	.0102	1.442 (1.09, 1.90)
Not having completed 12 years of education	5.59	.0181	2.469 (1.17, 5.22)
Logistic regression equation for predicting homelessness			
Trauma index	6.16	.0131	1.399 (1.07, 1.82)
Not having completed 12 years of education	7.13	.0076	2.604 (1.29, 5.25)

less than 12 years of education predicted certain current outcomes: recent homelessness, involvement with a man who urged drug use, daily drug use, and exchanging sex for drugs.

Women's Concern About Impact of Drug Use on Pregnancy

Table IV presents data on the women's reproductive histories. Almost all reported having used at least one drug during pregnancy, although three-quarters of them considered it "harmful to the baby" and wanted to stop. More than half reported decreasing the amount of crack or cocaine used during pregnancy, and almost one quarter said that they had stopped.

TABLE IV.
REPRODUCTIVE HISTORY

Reproductive History	Mean	SD	Range
Average number of pregnancies [146]*	4.3	2.2	1—12
		N	%
Condition [146]			
Currently pregnant		37	25
Not currently pregnant		107	73
Don't know		2	1
Drug use during pregnancy [146]			
Used drug during pregnancy		125	86
No change		11	9
Cut down		71	58
Stopped		28	23
Used more		13	11
Considered harmful to baby		94	75
Wanted to stop using drugs		93	74
Prenatal care [146]		125	86
Adequacy of prenatal care [125]			
Adequate		39	31
Intermediate		19	15
Inadequate		67	54
Reasons for not seeking prenatal care† [71]			
Felt bad about drug use		30	42
Embarrassed/guilty about drug use		30	42
No money		22	31
Too high		21	30
Too busy		18	25

NOTE: Adequacy of prenatal care was calculated according to the standards of the American College of Obstetricians and Gynecologists (ACOG). Inadequate prenatal care may have been slightly overestimated due to differences in measurement scales between ACOG and the instrument used for this study.

* Numbers in brackets indicate number responding to specific questions.
† Multiple responses possible, therefore percentages will not add up to 100%.

Although the most respondents reported having received prenatal care during the index pregnancy, only one-third of them probably actually received "adequate" prenatal care according to the standards of the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists.[20] The most commonly reported reasons for not seeking prenatal care included "having felt bad about using drugs," and having "felt guilty or embarrassed about being a drug-using pregnant woman."

Expert and Women's Opinions About Drug Treatment

The degree of concordance between the women and the experts was very high regarding the overall design of treatment (see Table V). The experts identified 11 program components as essential to a drug treatment program's effectively addressing women's needs. All the experts stated that the women's economic concerns and basic skill deficits should be addressed by drug treatment, with 90% citing safe shelter as the main priority. Most experts (78%) described the need for a continuum of care, stressed relapse prevention (50%), and stated that addicted women needed comprensive services (99%). (Percentages in the text that are not displayed in the tables are from first round of Delphi.) The women concurred on the importance of all 11 components, with services for children and aftercare considered to be the most important. Both the experts and the women stated that treatment planning should be individualized. Although the original intent of the study was to investigate treatment specifically for crack addiction, neither drug choice nor drug treatment history were associated with the trauma index or with opinions about desirable treatment.

Of the experts, 69% stated that prior experiences with violence needed to be addressed in treatment. The women emphasized family addiction and childhood experiences as important issues to address in treatment.

All the experts agreed that the parenting role of women must be addressed for treatment to have the optimal chance to succeed, and 73% emphasized the importance of including women's partners and family in treatment. More than half of the experts stated that women are kept out of treatment by lack of child care (both at home and at treatment). Most experts (55%) considered providing services for parents and children to be an important strategy for preventing drop-out from treatment.

Experts and women agreed that the most important areas for advocacy by treatment staff on behalf of addicted women were housing, child protection, and welfare (Table V). The importance of supportive treatment was stressed by all. More than half the experts considered treatment unlikely to succeed if time in treat-

TABLE V.
WOMEN'S AND EXPERTS' SELECTION OF THE MOST IMPORTANT COMPONENTS AND SUBCOMPONENTS IN ADDICTION TREATMENT

Component	Experts, %	Women, %
Aftercare	*100*	*98*
Twelve steps	67	49
Individual counseling	42	70
Services for children	*98*	*98*
Child development	81	87
Play therapy	77	76
Issue-oriented counseling	*100*	*92*
Self-esteem	62	60
Guilt and shame	49	44
Sexual violence	45	27
Depression	40	46
Family addiction	19	44
Program orientation	*98*	*95*
Individual treatment plans	64	50
Urine testing	19	52
Staff	*96*	*98*
Skilled workers	34	65
Cultural sensitivity	87	26
Addiction services	*98*	*95*
Residential for mother and child	96	90
Education and training	*98*	*97*
Parent training	89	81
Vocational	55	73
Counseling services	*96*	*97*
Family and children's therapy	78	73
Individual counseling	63	67
Women's groups	52	56
Health care on-site	*85*	*96*
Prenatal care	82	76
HIV	69	47
Pediatrics	47	51
Concrete services	*94*	*95*
Housing	100	96
Food	77	83
Advocacy	*91*	*94*
Housing	81	85
Child protection	79	73
Welfare	53	70

ment was limited (67%), if confrontational styles were employed (59%), or if most treatment staff were male (51%). Both the women (98%) and the experts (100%) considered aftercare to be a critical priority. This conforms with the understanding of addiction as a chronic relapsing condition and has implications both for the design of treatment and the evaluation of its success.[21, 22]

Discussion

Trauma

The prevalence of traumatic histories among these women is striking; approximately half them had experienced sexual assault, jail, psychiatric treatment and had grown up in families affected by drugs and alcohol. Because the sample comprised poor, urban, drug-using women, and because no control group was studied, it is not possible to posit a causal link between these traumatic experiences and drug addiction; perhaps such trauma is widespread among non-drug-using poor women as well. Other studies have also reported the high prevalence of sexual assault, psychiatric disturbance, and parental chemical dependency among women addicts; but these have also generally lacked control groups,[23-30]

This study, however, does demonstrate an association between past trauma and current drug-related behavior that permits inferences for the design of treatment. The higher the trauma score, that is, the greater the number of traumatic events in the life of an individual, the more likely she is to be currently sexually involved with a man who coercively used her to use drugs, and to be a heavy user herself. Although these findings do not show that past history of trauma is causally linked to the development of addiction, the association between previous trauma and current behavior leads us to hypothesize that treatment for addiction should incorporate therapy for sexual violence, family history of addiction, and other trauma.[31] The efficacy of such an approach requires evaluation in a controlled study.

Both the experts and the women concurred that therapy for past trauma should be included under the rubric of drug treatment. The

experts emphasized treatment for sexual and domestic violence, and the women stressed treatment for psychiatric disturbance, their own parents' addiction, and their own childhood experiences. Both the experts and the women emphasized the necessity of providing these psychodynamically oriented services within a context that acknowledges economic survival as essential.

Concern for Children

As described earlier, the rationale for prosecution of addicted pregnant women has been concern for the children.[35-37] Interestingly enough, many addicted women share this orientation. Rosenbaum described women heroin addicts as having contempt for those who failed to quit during pregnancy.[38, 39] The data presented here are consistent with previous reports which describe guilt, shame, and feelings of failure among addicted mothers for providing inadequately for their children or exposing them to drug-dominated environments.[40-46] Others have described pregnancy as an opportune time to engage addicted women in treatment because of their enhanced motivation; these data are consistent with that finding as well.[47] The women selected family therapy aimed at relationships with children as the preferred counseling modality, underscoring the importance they accorded their children.

Moreover, concern for their children's well being motivated the women to enter drug treatment, and most of them reported reduced drug use while they were pregnant as a result of that concern. Conversely, guilt and shame over using drugs while they were pregnant kept many women away from prenatal care. Thus, concern for children appears to be double-edged: on the one hand, it can be a source of motivation for recovery, and on the other, feelings of maternal guilt and failure may lead to avoidance of services. Gatekeepers, such as obstetricians, social workers, or child protection workers, and treatment providers may need to enhance the motivation by offering hope, and not exacerbate the shame and feelings of maternal incompetence.

Maternal responsibility for child care and the lack of child-care facilities connected with drug programs combine to prevent many

addicted women from receiving treatment. More than a decade ago, Beschner and Thompson reported that the majority of drug treatment programs, including those specifically geared for women, did not provide child care, and thus effectively precluded many women's ongoing participation in treatment.[52]Some therapeutic community proponents justified this according to their doctrine of focusing treatment solely on addiction. Discussion of other concerns, such as responsibility for children, was considered to be an attempt by the patient at evasion or denial of the primary problem of addiction. Some therapeutic communities have modified this position in relation to parental responsibilities.[53] However, because of lack of child care arrangements, many women still face the "Sophie's choice" of placing children in foster care in order to participate in drug treatment, or losing custody of the newborn to child protective services for failure to participate in treatment while pregnant.

Implications for Treatment

One hypothesis generated by these findings is that treatment for mothers will be more effective if therapy for sexual violence, family addiction, and relationship with children is centrally incorporated. Such a treatment design represents a departure both from the Therapeutic Community and Twelve-Step models, as well as from the more medically oriented methadone or disulfiram models. As discussed previously, the first two models insist that addiction must be addressed as the primary problem and separate it from issues of parenting, sexual abuse, etc. Our hypothesis in no way repudiates the useful contributions of these other therapeutic approaches, but posits that unless the major factors associated with chemical dependency are addressed in substance abuse treatment programs, early relapse can be anticipated. We further hypothesize that a successful program needs to assist women in maintaining relationships with their children, in sorting our relationships with their partners and families, and developing extended support networks. This visions of women within the context of "relationships" again requires evaluation as it represents a departure from previous treatment ideolo-

gy that had advocated severance from former peer groups on the assumption that they have fostered drug use.

Experts opposed the use of confrontational strategies which have often been utilized in male-oriented programs to break down denial, stating that the heightened guilt and shame experienced by many chemically dependent women is often exacerbated by such approaches.

The consensus which emerged between the experts and women on the importance of all 11 program components indicates a common vision of what comprises effective treatment for women: an approach that combines treatment for drug addiction with medical and therapeutic services for mother and child. Such a model program would also offer women education, job training, assistance with concrete needs such as day care and housing, and long-term after-care focused at relapse prevention and management. Although this approach is not new (it formed the basis for the model programs that started in New York, Philadelphia, Chicago, Detroit, Boston, and elsewhere during the past 20 years), it is still not widespread.[54-58]

While generalizing from these study findings because of the constraints of the sampling approach must be avoided, similar findings from other studies, and the regression analysis, lend credence to an association between past trauma and drug-associated behaviors. The association between high scores on the trauma index with the severity of drug use, and with other drug-associated behaviors that put women at high risk for HIV infection and experiencing further violence, underscores the urgency of developing therapeutic interventions to address previous trauma.

Some of those who advocate criminal penalties for drug use by pregnant women expressly intend to punish. Many, however, deny retributive intentions and assert only an interest in protecting fetal welfare. Many of these cite high relapse rates among drug users as grounds for resorting to the criminal justice system rather than to drug treatment.

These study data suggest that in addition to the chronic relapsing nature of addiction per se, relapse by women may result in part

from failure of treatment programs to address two specific needs: a history of trauma and responsibility for children.[59,60] It thus becomes critical to the legal/ethical debate to delineate what is meant by "drug treatment."

The comprehensive program described by the women and the experts approaches an ideal which far exceeds the limited resources generally available. Given recent reductions in human service programs, it seems unlikely that intensive services will be implemented, evaluated, and established on a scale that makes them readily accessible to those who need them. However, it is important to emphasize both sides of this tension: services that provide ready access for many need to be available rapidly; and services need to be of high enough quality to be effective. Even the provision of high-quality services for women with children will cost less than incarceration, foster care, or tertiary medical care. Because of the controversies about the cost and the legal debates over the desired social response to drug use during pregnancy, it is essential that we advocate for treatment that is likely to be effective. An empirical knowledge base is necessary. This study was intended to provide a first step.

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